

Improved Vegetation Shredding and Dispersal Apparatus

- a. a conveyor platform that is between 84 and 102 inches wide whereon said bales of vegetation can be placed;
- b. a shredding component wherein said bales of vegetation come into contact with at least two rotating cutters/agitators that tear apart the bales and agitate the vegetation into much smaller pieces of mulch;
- c. at least two sets of cross-linked conveyor chain assemblies embedded in said conveyor platform whereon said bales of vegetation can be transported into the shredding component;
- d. a blower section wherein the mulch is ingested through an intake port and is directed out an exhaust chute onto the surface to be covered; and
- e. a shroud which forms a barrier between said shredding component and said blower section and which is attached to the intake of said blower section.

2. An apparatus as in Claim 1 where there is no additional mechanical device to force or move the mulched vegetation into the blower section.
3. An apparatus as in Claim 1 where the shroud is positioned between 0.25 and 12 inches from the arc defined by the rotation of the cutters/agitators in the shredding component.
4. An apparatus as in Claim 3 where the bottom of the shroud is positioned 1 inch from the arc defined by the rotation of the lowest positioned cutter/agitator in the shredding component and the back of the shroud is 3 inches from the arc defined by the rotation of the cutters/agitators.
5. An apparatus as in Claims 1, 2, or 3 wherein there is sufficient force from the blower mechanism to fluidize the air/mulch mixture and pull said mixture through the blower intake and force said air/mulch mixture out a dispersal chute.
6. An apparatus as in Claims 1, 2, 3, or 4 wherein the length of the platform is between 16 and 34 feet.
7. An apparatus as in Claims 1, 2, 3, or 4 wherein the rotating cutter/agitators comprise a center mandrill, at least two arms axially mounted between 3 and 12 inches away from said mandrill through which the fluidized air/mulch mixture can move, and at least four cutting pieces affixed mechanically to said arms.
8. An apparatus as in Claims 1, 2, or 3 where the two or more sets of cross-linked conveyor chain assemblies are replaced by four or more individual conveyor chains which are not cross-linked.

9. An apparatus as in Claims 1, 2, or 3 where the rotating cutters/agitators are between 84 and 102 inches wide.
10. An improved vegetation shredding and dispersal apparatus capable of shredding and dispersing two or more bales of vegetation simultaneously comprising:
 - a. a conveyor platform that is 102 inches wide whereon said bales of vegetation can be placed;
 - b. a shredding component wherein said bales of vegetation come into contact with three rotating cutters/agitators that tear apart the bales and agitate the vegetation into much smaller pieces of mulch, said rotating cutters/agitators being 102 inches long;
 - c. three sets of cross-linked conveyor chain assemblies embedded in said conveyor platform whereon said bales of vegetation can be transported into the shredding component;
 - d. a blower section wherein the mulch is ingested through an intake port and is directed out an exhaust chute onto the surface to be covered; and
 - e. a shroud which forms a barrier between said shredding component and said blower section and which is attached to the intake of said blower section, and wherein the shroud is positioned three inches from the arc defined by the rotating cutter/agitator assemblies.
11. An improved vegetation shredding and dispersal apparatus capable of shredding two or more large bales of vegetation simultaneously.
12. An improved vegetation shredding and dispersal apparatus capable of shredding two or more large bales of vegetation simultaneously wherein the force provided by a blower mechanism is sufficient to propel shredded vegetation onto the surface being covered.

Abstract

A vegetation shredding and dispersal apparatus that comprises a conveying platform, a cutting/agitating mechanism, and a blower apparatus. The conveying platform and the cutting/agitating mechanism are substantially wide enough to simultaneously process 2 or more bales of mulching vegetation, yet the shredding and dispersal apparatus is still narrow enough to meet state and federal vehicle width requirements. The wide conveying platform comprises two or more conveying chain assemblies to introduce the baled vegetation into the rotating cutters/agitators, which are essentially the same width as the conveyor platform. The shredded mulch is then fluidized by the cutters/agitators

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and then directed to the blower intake by the vacuum created by the blower. The shredded mulch is then ejected from the blower and spread onto newly seeded areas to prevent ground erosion and to promote seed germination. The wider platform conveyor allows more bales of vegetation to be pre-staged and reduces the time expended on reloading the vegetation shredding and dispersal apparatus. The extra width also allows the rapid introduction of multiple bales of hay into the cutters/agitators. This rapid introduction of hay into the shredding and dispersal apparatus allows for quicker and more economical completion of construction, landscaping, erosion control, highway, and similar projects.